

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) An endovascular device for bridging an aneurysmic region of a blood vessel; comprising:

a first, outer graft wall having proximal and distal ends, said outer graft wall being formed from a flexible, elastic material that is selectively expandable to generally conform to an interior shape of the aneurysmic region of the blood vessel;

a second, inner graft wall having proximal and distal ends; ~~and~~

at least one stent structure secured to at least one of said inner and outer walls for supporting and securing said respective wall with respect to the blood vessel; and

means for a solidifiable fluid to flow to an area between said outer graft wall and said inner graft wall, thereby expanding said outer graft wall and spacing said outer graft wall from said inner graft wall.

2. (Original) An endovascular device as in claim 1, wherein first and second stent structures are provided adjacent proximal and distal ends of said respective wall.

3. (Original) An endovascular device as in claim 1, wherein first and second stent structures are secured to each of said inner and outer walls adjacent said proximal and distal ends thereof.

4. (Original) An endovascular device as in claim 1, wherein each of said inner and outer walls is substantially free from said stent structure intermediate proximal and distal end portions thereof.

5. (Currently amended) An endovascular device as in claim 1, wherein said inner wall is formed of a material that is at least one of permeable to blood or has pores defined therethrough for the passage of whole blood, thereby comprising said means for fluid to flow.

6. (Original) An endovascular device as in claim 1, further comprising a catheter in communication with a space between said inner and outer graft walls and sealed with respect to said inner and outer graft walls for selectively filling said space.

7. (Original) An endovascular device as in claim 1, wherein said material of said outer wall structure is one of polytetrafluoroethylene and polyurethane carbonate.

8. (Original) An endovascular device as in claim 1, wherein a material of said inner graft structure is knitted Dacron polyester.

9. (Original) An endovascular device as in claim 1, wherein said stent structure is a self-expanding stent structure.

10. (Currently amended) A method of repairing an aneurysmic region of a blood vessel with an endovascular device, comprising:

providing a first, outer graft wall structure;

providing a second, inner graft wall structure, said inner and outer graft wall structures defining the endovascular device, said outer graft wall structure being formed from a flexible, elastic material that is selectively expandable to generally conform to an interior shape of the aneurysmic region of the blood vessel;

delivering said outer wall structure to the site of said aneurysmic region and securing proximal and distal ends of said outer wall structure with respect to proximal and distal ends of said aneurysmic region;

delivering said inner wall structure to the site of said aneurysmic region and securing proximal and distal ends of said inner wall structure with respect to proximal and distal ends of said aneurysmic region;

filling a space between said inner and outer wall structures by ~~at least one~~ of flowing a solidifiable material to and capturing a solidifiable material in into said space, thereby expanding said outer wall structure and spacing said outer wall structure from said inner wall structure; and

allowing said material to solidify thereby to anchor the endovascular device defined by said inner and outer graft wall structures with respect to said aneurysmic region.

11. (Original) A method as in claim 10, wherein said steps of delivering said outer graft structure and delivering said inner graft structure are performed simultaneously with said inner wall structures disposed concentrically within the outer wall structure.

12. (Original) A method as in claim 10, wherein said steps of delivering said outer graft structure and delivering said inner graft structure are performed sequentially.

13. (Original) A method as in claim 10, wherein said step of filling said space comprises providing an inner graft structure that is at least one of permeable to blood or has pores defined therethrough for the passage of blood and allowing blood to flow through said inner graft structure into said space.

14. (Original) A method as in claim 10, wherein said step of filling said space comprises providing a catheter in communication with the space between said inner and outer wall structures and sealed with respect to said inner and outer wall structures and delivering said solidifiable material through said catheter to said space.

15. (Original) A method as in claim 10, wherein said solidifiable material is blood.

16. (New) An endovascular device as in claim 1, wherein said outer graft wall is impermeable to whole blood and said inner graft wall is permeable to whole blood.

17. (New) A method as in claim 10, wherein said step of filling expands said outer wall structure to generally conform to an interior shape of the aneurysmic region of the blood vessel.